

CITY OF JACKSON
O. B. Curtis Water Treatment Plant
Monthly Report For HS# 2 Based On Filtered Water

System ID **250008-02**
Month of **December 2018**

- | | |
|---|------------|
| 1. Total number of turbidity measurements taken during the month. | CONTINUOUS |
| 2. Percentage of turbidity that were equal to or less than the turbidity limit of 0.3 NTU. | 99.6% |
| 3. Number of filters that exceeded 0.5 NTU in 2 consecutive readings taken 15 min. apart after first four hours of operation. | NONE |
| 4. Number of filters that exceeded 1.0 NTU in 2 consecutive readings taken 15 min. apart in 3 consecutive months. | NONE |
| 5. Lowest daily disinfectant concentration entering the distribution system in mg/l. | |

1	2.3	7	2.8	13	2.0	19	2.4	25	2.4
2	2.9	8	2.5	14	2.4	20	2.2	26	2.2
3	3.0	9	2.6	15	2.4	21	2.1	27	2.3
4	3.0	10	2.7	16	2.0	22	2.1	28	2.0
5	2.9	11	2.8	17	2.1	23	2.1	29	2.0
6	2.7	12	2.7	18	2.1	24	2.5	30	2.3
								31	2.4

- | | |
|--|------|
| 6. Date and duration of each period the disinfectant fell below 0.2 mg/l for more than an hour while entering the distribution system. | NONE |
| 7. Total number of disinfectant residual measured in the distribution system where total coliform samples were collected. | 126 |
| 8. Number of instances where disinfectant was not measured in the distribution system where total coliform samples were collected. | NONE |
| 9. Number of instances where disinfectant was measured in the distributed system but not detected. | NONE |

City Of Jackson, MS
O. B. Curtis Surface Water Treatment Plant
Turbidity Compliance Report

System ID 250008-02
Month Of December 2018

Dec 2018	TURBIDITIES (NTU)	
	RAW	TRAINs
1	17.9	0.15
2	19.3	0.16
3	15.4	0.16
4	16.2	0.16
5	14.4	0.16
6	15.0	0.16
7	20.8	0.13
8	16.0	0.13
9	14.0	0.16
10	16.2	0.17
11	15.1	0.17
12	21.5	0.20
13	14.0	0.17
14	16.9	0.20
15	20.8	0.19
16	22.6	0.15
17	43.1	0.19
18	18.8	0.21
19	18.4	0.13
20	25.5	0.16
21	40.4	0.17
22	23.8	0.16
23	19.9	0.19
24	18.4	0.15
25	23.1	0.18
26	20.6	0.20
27	22.2	0.16
28	21.3	0.15
29	33.6	0.17
30	21.0	0.15
31	20.4	0.17
MIN	14.0	0.13
MAX	43.1	0.21
AVG	20.9	0.17

City Of Jackson, MS
O. B. Curtis Surface Water Treatment Plant
Turbidity Compliance

System ID
Month Of

250008-02
December 2018

Dec 2018	TIME					
	12:00 AM	4:00 AM	8:00 AM	12:00 PM	4:00 PM	8:00 PM
1	0.13	0.15	0.12	0.11	0.09	0.12
2	0.15	0.09	0.15	0.15	0.16	0.15
3	0.14	0.13	0.16	0.15	0.16	0.15
4	0.15	0.16	0.15	0.13	0.10	0.09
5	0.16	0.16	0.10	0.16	0.16	0.16
6	0.10	0.16	0.16	0.16	0.09	0.09
7	0.10	0.13	0.08	0.08	0.11	0.13
8	0.13	0.10	0.09	0.10	0.12	0.12
9	0.16	0.16	0.16	0.16	0.16	0.16
10	0.16	0.16	0.17	0.16	0.16	0.16
11	0.17	0.16	0.16	0.16	0.16	0.16
12	0.11	0.16	0.16	0.17	0.16	0.20
13	0.11	0.17	0.11	0.17	0.17	0.17
14	0.10	0.17	0.17	0.17	0.18	0.20
15	0.08	0.18	0.19	0.19	0.18	0.19
16	0.09	0.08	0.14	0.14	0.15	0.13
17	0.12	0.13	0.17	0.17	0.19	0.09
18	0.09	0.11	0.14	0.09	0.10	0.21
19	0.10	0.11	0.12	0.13	0.12	0.12
20	0.12	0.15	0.16	0.12	0.12	0.09
21	0.15	0.11	0.17	0.12	0.15	0.14
22	0.15	0.16	0.15	0.09	0.13	0.13
23	0.19	0.18	0.18	0.12	0.14	0.15
24	0.14	0.15	0.11	0.13	0.14	0.14
25	0.12	0.12	0.17	0.12	0.15	0.18
26	0.13	0.14	0.14	0.20	0.20	0.19
27	0.10	0.16	0.14	0.13	0.16	0.09
28	0.14	0.15	0.10	0.10	0.10	0.13
29	0.10	0.16	0.17	0.13	0.12	0.11
30	0.13	0.12	0.15	0.13	0.14	0.13
31	0.13	0.14	0.17	0.12	0.14	0.12
MIN	0.08	0.08	0.08	0.08	0.09	0.09
MAX	0.19	0.18	0.19	0.20	0.20	0.21
AVG	0.13	0.14	0.15	0.14	0.14	0.14

City Of Jackson, MS
O. B. Curtis Surface Water Treatment Plant
Disinfectant Compliance

System ID
Month Of

250008-02
December 2018

Dec 2018	TIME					
	12:00 AM	4:00 AM	8:00 AM	12:00 PM	4:00 PM	8:00 PM
1	3.1	2.7	2.5	2.3	2.7	2.7
2	3.0	2.9	3.1	3.0	2.9	3.0
3	3.0	3.0	3.1	3.0	3.1	3.2
4	3.2	3.0	3.1	3.0	3.1	3.2
5	3.1	3.23.1	3.0	2.9	3.0	3.0
6	3.0	2.8	2.7	2.9	2.8	2.8
7	2.8	2.9	3.0	2.9	2.8	2.9
8	2.8	2.7	2.6	2.5	2.6	2.7
9	2.7	2.7	2.6	2.6	2.6	2.9
10	2.8	2.8	2.7	2.8	3.1	3.0
11	2.9	2.9	2.8	2.8	2.9	2.9
12	2.8	2.7	2.7	2.8	2.7	2.7
13	2.0	2.3	2.0	2.8	2.7	3.1
14	2.8	2.8	2.7	2.6	2.6	2.4
15	2.4	2.5	2.6	2.6	2.4	2.4
16	2.0	2.3	2.1	2.2	2.1	2.3
17	2.3	2.1	2.1	2.1	2.4	2.7
18	2.1	2.1	2.1	2.4	2.2	2.3
19	2.4	2.5	2.5	2.5	2.4	2.4
20	2.4	2.3	2.9	2.8	2.8	2.2
21	2.2	2.3	2.3	2.2	2.1	2.2
22	2.4	2.1	3.2	3.3	3.0	2.9
23	2.1	2.2	2.3	2.6	2.4	2.4
24	2.6	2.6	2.6	2.9	2.6	2.5
25	2.5	2.4	2.6	3.1	3.0	2.4
26	2.2	2.3	2.2	2.5	3.4	3.5
27	2.3	2.5	2.6	3.6	2.6	2.4
28	2.4	2.3	2.3	2.2	2.0	2.0
29	2.0	2.1	2.0	2.0	2.1	2.2
30	2.3	2.4	2.5	2.6	2.5	2.4
31	2.4	3.4	2.6	2.6	2.4	2.4
MIN	2.0	2.1	2.0	2.0	2.0	2.0
MAX	3.2	3.4	3.2	3.6	3.4	3.5
AVG	2.5	2.6	2.6	2.7	2.6	2.6

CITY OF JACKSON
J. H. Fewell Water Treatment Plant
Monthly Report

System ID **250008-01**
Month of **December 2018**

- | | |
|---|------------|
| 1. Total number of turbidity measurements taken during the month. | CONTINUOUS |
| 2. Percentage of turbidity that were equal to or less than the turbidity limit of 0.3 NTU. | 97.9% |
| 3. Number of filters that exceeded 0.5 NTU in 2 consecutive readings taken 15 min. apart after first four hours of operation. | NONE |
| 4. Number of filters that exceeded 1.0 NTU in 2 consecutive readings taken 15 min. apart in 3 consecutive months. | NONE |
| 5. Lowest daily disinfectant concentration entering the distribution system in mg/l. | |

1	2.8	7	2.9	13	2.4	19	2.7	25	3.1
2	2.8	8	2.1	14	2.5	20	3.1	26	2.7
3	2.3	9	2.6	15	2.6	21	2.8	27	3.0
4	2.9	10	1.9	16	2.7	22	2.2	28	3.1
5	3.0	11	3.0	17	2.6	23	2.9	29	2.8
6	2.9	12	2.3	18	2.1	24	3.1	30	2.3
								31	2.8

- | | |
|--|------|
| 6. Date and duration of each period the disinfectant fell below 0.2 mg/l for more than an hour while entering the distribution system. | NONE |
| 7. Total number of disinfectant residual measured in the distribution system where total coliform samples were collected. | 126 |
| 8. Number of instances where disinfectant was not measured in the distribution system where total coliform samples were collected. | NONE |
| 9. Number of instances where disinfectant was measured in the distributed system but not detected. | NONE |

City of Jackson, MS
J. H. Fewell Surface Water Treatment Plant
Turbidity Compliance Report

System ID
MONTH

250008-01
December 2018

Dec 2018	TURBIDITIES (NTU)			
	RAW	SETTLED	FILTER	HS #1
1	12.4	0.40	0.16	0.14
2	19.2	0.52	0.06	0.12
3	17.5	0.93	0.09	0.13
4	15.2	0.56	0.15	0.19
5	90.0	0.35	0.14	0.13
6	15.4	0.59	0.15	0.14
7	13.7	0.36	0.13	0.11
8	45.7	0.34	0.06	0.12
9	32.1	0.27	0.06	0.20
10	90.0	0.84	0.05	0.12
11	26.2	0.37	0.12	0.10
12	90.0	0.26	0.05	0.13
13	20.3	0.31	0.18	0.20
14	90.0	0.48	0.15	0.22
15	30.8	0.44	0.14	0.18
16	24.0	0.43	0.15	0.29
17	66.8	0.73	0.10	0.26
18	33.3	0.48	0.07	0.23
19	57.5	0.49	0.07	0.33
20	24.7	0.46	0.14	0.24
21	79.0	0.35	0.13	0.34
22	30.3	1.12	0.19	0.36
23	24.6	0.64	0.16	0.27
24	23.6	0.96	0.12	0.17
25	22.6	0.74	0.15	0.22
26	90.0	0.56	0.10	0.22
27	90.0	0.52	0.17	0.29
28	88.2	0.46	0.09	0.28
29	39.2	0.60	0.13	0.30
30	43.8	0.60	0.16	0.20
31	41.9	1.03	0.17	0.20
MIN	12.40	0.26	0.05	0.10
MAX	90.0	1.12	0.19	0.36
AVG	44.8	0.55	0.12	0.17

City of Jackson, MS
J. H. Fewell Surface Water Treatment Plant
Turbidity Compliance

System ID
MONTH

250008-01
December 2018

Dec 2018	TIME					
	12:00 AM	4:00 AM	8:00 AM	12:00 PM	4:00 PM	8:00 PM
1	0.10	0.10	0.14	0.11	0.10	0.10
2	0.11	0.10	0.10	0.11	0.11	0.12
3	0.13	0.12	0.12	0.11	0.10	0.10
4	0.10	0.11	0.19	0.11	0.10	0.10
5	0.10	0.11	0.12	0.13	0.13	0.13
6	0.14	0.13	0.12	0.12	0.12	0.12
7	0.11	0.11	0.11	0.11	0.11	0.10
8	0.10	0.10	0.11	0.11	0.11	0.12
9	0.13	0.14	0.20	0.18	0.16	0.13
10	0.12	0.11	0.11	0.11	0.11	0.11
11	0.10	0.09	0.09	0.09	0.09	0.09
12	0.11	0.10	0.12	0.13	0.13	0.13
13	0.14	0.15	0.18	0.20	0.20	0.19
14	0.21	0.22	0.22	0.18	0.14	0.13
15	0.16	0.18	0.17	0.16	0.13	0.13
16	0.12	0.15	0.29	0.29	0.17	0.20
17	0.20	0.25	0.26	0.21	0.19	0.18
18	0.22	0.23	0.23	0.22	0.18	0.18
19	0.21	0.31	0.33	0.23	0.18	0.20
20	0.23	0.24	0.23	0.19	0.20	0.21
21	0.21	0.28	0.28	0.23	0.34	0.34
22	0.34	0.35	0.36	0.28	0.23	0.23
23	0.24	0.21	0.21	0.24	0.27	0.22
24	0.17	0.16	0.16	0.15	0.15	0.15
25	0.17	0.20	0.22	0.19	0.19	0.22
26	0.22	0.22	0.22	0.21	0.19	0.18
27	0.18	0.19	0.27	0.29	0.28	0.28
28	0.28	0.28	0.20	0.19	0.19	0.16
29	0.21	0.30	0.19	0.23	0.19	0.13
30	0.12	0.14	0.20	0.18	0.14	0.15
31	0.13	0.19	0.19	0.17	0.18	0.20
MIN	0.10	0.09	0.09	0.09	0.09	0.09
MAX	0.34	0.35	0.36	0.29	0.34	0.34
AVG	0.16	0.18	0.19	0.18	0.16	0.16

Higher finished
turbidities due to post-
treatment lime addition

City Of Jackson, MS
J. H. Fewell Surface Water Treatment Plant
Disinfectant Compliance

System ID
MONTH

250008-01
December 2018

Dec 2018	TIME					
	12:00 AM	4:00 AM	8:00 AM	12:00 PM	4:00 PM	8:00 PM
1	3.2	3.3	3.3	2.9	2.8	2.9
2	2.8	2.9	2.9	2.8	2.8	2.9
3	2.9	2.9	2.3	3.1	3.0	3.0
4	3.1	3.0	3.0	2.9	3.0	3.0
5	3.0	3.0	3.1	3.0	3.0	3.0
6	3.0	3.0	3.1	2.9	2.9	3.1
7	3.0	3.1	2.9	3.0	3.0	3.1
8	3.1	3.0	3.0	2.1	2.9	2.9
9	2.9	2.9	2.8	2.6	2.7	2.8
10	2.9	2.8	1.9	3.2	3.4	3.3
11	3.1	3.1	3.1	3.0	3.0	3.0
12	2.7	2.6	2.6	2.3	2.3	2.4
13	2.7	2.8	2.4	2.6	2.6	2.5
14	2.5	2.6	2.7	2.7	2.7	2.7
15	2.6	2.7	2.6	2.7	2.7	2.7
16	2.7	2.7	2.7	2.7	2.7	2.7
17	2.7	2.8	2.7	2.7	2.7	2.6
18	2.6	2.6	2.7	2.6	2.1	2.7
19	2.7	2.7	2.7	3.0	3.2	3.2
20	3.2	3.1	3.1	3.1	3.2	3.3
21	3.3	3.2	3.1	3.1	3.0	2.8
22	2.4	2.2	2.2	2.5	2.6	2.2
23	2.9	3.0	2.9	2.9	2.9	3.0
24	3.1	3.1	3.1	3.1	3.1	3.1
25	3.1	3.1	3.1	3.1	3.1	3.1
26	3.1	3.1	2.7	3.0	3.3	3.4
27	3.3	3.3	3.1	3.0	3.1	3.4
28	3.7	4.0	3.1	3.2	3.1	3.1
29	3.1	2.9	2.8	2.8	2.9	2.8
30	2.9	2.9	3.1	3.0	2.5	2.3
31	2.8	3.0	3.0	2.9	2.9	3.0
MIN	2.4	2.2	1.9	2.1	2.1	2.2
MAX	3.7	4.0	3.3	3.2	3.4	3.4
AVG	2.9	2.9	2.8	2.9	2.9	2.9

CITY OF JACKSON
DISTRIBUTION SYSTEM DISINFECTANT DATA

System ID 250008

Month of December 2018

	No. of sites, disinfectant residual measured (a)	No. of sites, no disinfectant measured, HPC measured (b)	No. of sites, disinfectant residual not detected, no HPC measured (c)	No. of sites, disinfectant residual not detected. HPC> 500/ml (d)	No. of sites, disinfectant residual not measured. HPC > 500/ml (e)
DATE	COL 2	COL 3	COL 4	COL 5	COL 6
1					
2					
3					
4	57				
5	37				
6	32				
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
Total	126	0	0	0	0

$$V = \frac{(c+d+e)}{(a+b)} * 100$$

$$V = 0$$

CITY OF JACKSON
CHLORINE DIOXIDE COMPLIANCE

Dec-18	SYSTEM ID: 250008-02		SYSTEM ID: 250008-01	
	O.B. CURTIS		J. H. FEWELL	
	ClO ₂	ClO ⁻	ClO ₂	ClO ⁻
1	OFF	OFF	OFF	OFF
2	OFF	OFF	OFF	OFF
3	OFF	OFF	OFF	OFF
4	OFF	OFF	OFF	OFF
5	OFF	OFF	OFF	OFF
6	OFF	OFF	OFF	OFF
7	OFF	OFF	OFF	OFF
8	OFF	OFF	OFF	OFF
9	OFF	OFF	OFF	OFF
10	OFF	OFF	OFF	OFF
11	OFF	OFF	OFF	OFF
12	OFF	OFF	OFF	OFF
13	OFF	OFF	OFF	OFF
14	OFF	OFF	OFF	OFF
15	OFF	OFF	OFF	OFF
16	OFF	OFF	OFF	OFF
17	OFF	OFF	OFF	OFF
18	OFF	OFF	OFF	OFF
19	OFF	OFF	OFF	OFF
20	OFF	OFF	OFF	OFF
21	OFF	OFF	OFF	OFF
22	OFF	OFF	OFF	OFF
23	OFF	OFF	OFF	OFF
24	OFF	OFF	OFF	OFF
25	OFF	OFF	OFF	OFF
26	OFF	OFF	OFF	OFF
27	OFF	OFF	OFF	OFF
28	OFF	OFF	OFF	OFF
29	OFF	OFF	OFF	OFF
30	OFF	OFF	OFF	OFF
31	OFF	OFF	OFF	OFF

DISTRIBUTION SITES			
DATE	SITE	ClO ₂	ClO ⁻
	Olympia		
	Boling St		
	John Hopkins		

CITY OF JACKSON
TOC REMOVAL SUMMARY

2018

TOC Table- Required % Removal of TOC			
Source Water TOC (ppm)	Source Water Alkalinity, ppm as CaCO ₃		
	0-60	>60-120	>120
>2.0 to 4.0	35.0%	25.0%	15.0%
>4.0 to 8.0	45.0%	35.0%	25.0%
>8.0	50.0%	40.0%	30.0%

$$\% \text{ ACTUAL TOC REMOVED} = \frac{\text{RAW TOC} - \text{FINISHED TOC}}{\text{RAW TOC}} \times 100\%$$

$$\text{TOC REMOVAL RATIO} = \frac{\% \text{ ACTUAL TOC REMOVED}}{\text{REQUIRED TOC REMOVAL}}$$

Date	Water Treatment Plant	TOC Summary			TOC % Removal Summary		
		Source Water Alkalinity (ppm)	Source Water TOC (ppm)	Treated Water TOC (ppm)	Actual TOC Removed (%)	Required TOC Removal (%)	TOC Removal Ratio
1/9/2018	OBC HS1	12	8.2	3.9	52.4	50.0	1.05
	OBC HS2	12	8.2	4.1	50.0	50.0	1.00
	JHF HS1	26	8.3	5.2	37.3	50.0	0.75
1/19/2018	OBC HS1	13	6.8	3.1	54.4	50.0	1.09
	OBC HS2	13	6.8	2.2	67.6	50.0	1.35
	JHF HS1	20	7.2	2.0	72.2	50.0	1.44
1/31/2018	OBC HS1	12	4.2	1.9	54.8	45.0	1.22
	OBC HS2	12	4.2	1.3	69.0	45.0	1.53
	JHF HS1	17	5.3	1.1	79.2	45.0	1.76
2/5/2018	OBC HS1	15	7.7	1.9	75.3	45.0	1.67
	OBC HS2	15	7.7	2.7	64.9	45.0	1.44
	JHF HS1	16	9.7	1.4	85.6	50.0	1.71
2/12/2018	OBC HS1	15	8.7	3.7	57.5	50.0	1.15
	OBC HS2	15	8.7	4.0	54.0	50.0	1.08
	JHF HS1	15	11.5	4.2	63.5	50.0	1.27
2/21/2018	OBC HS1	11	14.4	4.3	70.1	50.0	1.40
	OBC HS2	11	14.4	5.1	64.6	50.0	1.29
	JHF HS1	11	13.5	5.4	60.0	50.0	1.20
2/27/2018	OBC HS1	11	12.5	4.3	65.6	50.0	1.31
	OBC HS2	11	12.5	4.8	61.6	50.0	1.23
	JHF HS1	11	12.9	3.9	69.8	50.0	1.40
3/5/2018	OBC HS1	12	6.8	3.9	42.6	45.0	0.95
	OBC HS2	12	6.8	4.1	39.7	45.0	0.88
	JHF HS1	11	8.1	3.5	56.8	50.0	1.14
3/14/2018	OBC HS1	12	11.7	3.7	68.4	50.0	1.37
	OBC HS2	12	11.7	4.8	59.0	50.0	1.18
	JHF HS1	12	12.8	3.8	70.3	50.0	1.41
3/20/2018	OBC HS1	13	15.9	6.9	56.6	50.0	1.13
	OBC HS2	13	15.9	7.4	53.5	50.0	1.07
	JHF HS1	12	13.2	7.0	47.0	50.0	0.94
3/27/2018	OBC HS1	10	11.1	4.3	61.3	50.0	1.23
	OBC HS2	10	11.1	5.0	55.0	50.0	1.10
	JHF HS1	12	12.3	5.4	56.1	50.0	1.12
4/3/2018	OBC HS1	12	13.0	5.7	56.2	50.0	1.12
	OBC HS2	12	13.0	4.9	62.3	50.0	1.25
	JHF HS1	10	14.6	4.5	69.2	50.0	1.38
RUNNING ANNUAL AVERAGE	OBC HS1					1.22	
	OBC HS2		1.20				
	JHF HS1		1.29				
TOTAL COMBINED RUNNING ANNUAL AVERAGE							1.24

CITY OF JACKSON
TOC REMOVAL SUMMARY

2018

TOC Table- Required % Removal of TOC			
Source Water TOC (ppm)	Source Water Alkalinity, ppm as CaCO ₃		
	0-60	>60-120	>120
>2.0 to 4.0	35.0%	25.0%	15.0%
>4.0 to 8.0	45.0%	35.0%	25.0%
>8.0	50.0%	40.0%	30.0%

$$\% \text{ ACTUAL TOC REMOVED} = \frac{\text{RAW TOC} - \text{FINISHED TOC}}{\text{RAW TOC}} \times 100\%$$

$$\text{TOC REMOVAL RATIO} = \frac{\% \text{ ACTUAL TOC REMOVED}}{\text{REQUIRED TOC REMOVAL}}$$

Date	Water Treatment Plant	TOC Summary			TOC % Removal Summary		
		Source Water Alkalinity (ppm)	Source Water TOC (ppm)	Treated Water TOC (ppm)	Actual TOC Removed (%)	Required TOC Removal (%)	TOC Removal Ratio
4/9/2018	OBC HS1	12	12.5	3.7	70.4	50.0	1.41
	OBC HS2	12	12.5	3.9	68.8	50.0	1.38
	JHF HS1	10	12.6	4.5	64.3	50.0	1.29
4/16/2018	OBC HS1	16	13.5	2.1	84.4	50.0	1.69
	OBC HS2	16	13.5	5.2	61.5	50.0	1.23
	JHF HS1	8	15.3	5.3	65.4	45.0	1.45
5/8/2018	OBC HS1	11	9.7	3.7	61.9	50.0	1.24
	OBC HS2	11	9.7	3.4	64.9	50.0	1.30
	JHF HS1	15	9.8	4.0	59.2	50.0	1.18
5/16/2018	OBC HS1	12	8.9	1.7	80.9	50.0	1.62
	OBC HS2	12	8.9	1.6	82.0	50.0	1.64
	JHF HS1	17	8.5	2.7	68.2	50.0	1.36
5/22/2018	OBC HS1	13	10.6	6.2	41.5	50.0	0.83
	OBC HS2	13	10.6	6.4	39.6	50.0	0.79
	JHF HS1	24	16.5	5.9	64.2	50.0	1.28
5/30/2018	OBC HS1	15	7.6	3.8	50.0	50.0	1.00
	OBC HS2	15	9.2	3.9	57.6	50.0	1.15
	JHF HS1	16	9.6	4.0	58.3	50.0	1.17
6/4/2018	OBC HS1	14	10.5	2.4	77.1	50.0	1.54
	OBC HS2	14	10.5	4.1	61.0	50.0	1.22
	JHF HS1	17	8.1	3.0	63.0	50.0	1.26
6/12/2018	OBC HS1	18	7.4	1.7	77.0	45.0	1.71
	OBC HS2	18	7.4	2.1	71.6	45.0	1.59
	JHF HS1	16	13.4	1.8	86.6	50.0	1.73
6/17/2018	OBC HS1	15	7.1	2.2	69.0	45.0	1.53
	OBC HS2	15	7.1	1.6	77.5	45.0	1.72
	JHF HS1	17	7.3	2.0	72.6	45.0	1.61
6/25/2018	OBC HS1	17	8.4	1.4	83.3	50.0	1.67
	OBC HS2	17	8.4	2.6	69.0	50.0	1.38
	JHF HS1	29	7.4	1.3	82.4	45.0	1.83
7/6/2018	OBC HS1	15	7.9	2	74.7	45.0	1.66
	OBC HS2	15	7.9	2.5	68.4	45.0	1.52
	JHF HS1	15	6.2	3.0	51.6	45.0	1.15
7/10/2018	OBC HS1	13	7.1	1.3	81.7	45.0	1.82
	OBC HS2	13	7.1	2.0	71.8	45.0	1.60
	JHF HS1	16	4.6	1.7	63.0	45.0	1.40
7/17/2018	OBC HS1	21	5.1	2.3	54.9	45.0	1.22
	OBC HS2	21	5.1	2.1	58.8	45.0	1.31
	JHF HS1	24	5.7	2.6	54.4	45.0	1.21
RUNNING ANNUAL AVERAGE	OBC HS1						1.34
	OBC HS2						1.29
	JHF HS1						1.34
TOTAL COMBINED RUNNING ANNUAL AVERAGE							1.32

CITY OF JACKSON
TOC REMOVAL SUMMARY

2018

TOC Table- Required % Removal of TOC			
Source Water TOC (ppm)	Source Water Alkalinity, ppm as CaCO ₃		
	0-60	>60-120	>120
>2.0 to 4.0	35.0%	25.0%	15.0%
>4.0 to 8.0	45.0%	35.0%	25.0%
>8.0	50.0%	40.0%	30.0%

$$\% \text{ ACTUAL TOC REMOVED} = \frac{\text{RAW TOC} - \text{FINISHED TOC}}{\text{RAW TOC}} \times 100\%$$

$$\text{TOC REMOVAL RATIO} = \frac{\% \text{ ACTUAL TOC REMOVED}}{\text{REQUIRED TOC REMOVAL}}$$

Date	Water Treatment Plant	TOC Summary			TOC % Removal Summary		
		Source Water Alkalinity (ppm)	Source Water TOC (ppm)	Treated Water TOC (ppm)	Actual TOC Removed (%)	Required TOC Removal (%)	TOC Removal Ratio
7/23/2018	OBC HS1	21	6.5	2.2	66.2	45.0	1.47
	OBC HS2	21	6.5	2.7	58.5	45.0	1.30
	JHF HS1	19	7.1	3.1	56.3	45.0	1.25
8/8/2018	OBC HS1	22	9.1	3.3	63.7	50.0	1.27
	OBC HS2	22	9.1	3.1	65.9	50.0	1.32
	JHF HS1	24	6.7	5.1	23.9	45.0	0.53
8/13/2018	OBC HS1	19	9.0	2.5	72.2	50.0	1.44
	OBC HS2	19	9.0	2.2	75.6	50.0	1.51
	JHF HS1	22	8.0	3.1	61.3	45.0	1.36
8/20/2018	OBC HS1	22	6.7	1.9	71.6	45.0	1.59
	OBC HS2	22	6.7	1.4	79.1	45.0	1.76
	JHF HS1	19	7.8	2.1	73.1	45.0	1.62
8/27/2018	OBC HS1	21	10.9	5.1	53.2	50.0	1.06
	OBC HS2	21	10.9	3.5	67.9	50.0	1.36
	JHF HS1	24	5.9	3.6	39.0	45.0	0.87
9/5/2018	OBC HS1	20	10.7	1.7	84.1	50.0	1.68
	OBC HS2	20	10.7	2.7	74.8	50.0	1.50
	JHF HS1	20	5.4	2.9	46.3	45.0	1.03
9/11/2018	OBC HS1	19	8.9	3.2	64.0	50.0	1.28
	OBC HS2	19	8.6	3.0	65.1	50.0	1.30
	JHF HS1	21	7.1	2.6	63.4	45.0	1.41
9/17/2018	OBC HS1	23	7.8	2	74.4	45.0	1.65
	OBC HS2	23	7.8	2.3	70.5	45.0	1.57
	JHF HS1	25	5.2	2.9	44.2	45.0	0.98
9/25/2018	OBC HS1	19	8.3	3.2	61.4	50.0	1.23
	OBC HS2	19	8.3	3.1	62.7	50.0	1.25
	JHF HS1	29	8.4	3.9	53.6	50.0	1.07
10/2/2018	OBC HS1	22	7.8	2.8	64.1	50.0	1.28
	OBC HS2	22	7.8	1.9	75.6	50.0	1.51
	JHF HS1	23	6.1	3.5	42.6	45.0	0.95
10/10/2018	OBC HS1	21	8.1	4.3	46.9	50.0	0.94
	OBC HS2	21	8.1	3.8	53.1	50.0	1.06
	JHF HS1	30	6.9	3.3	52.2	45.0	1.16
10/16/2018	OBC HS1	23	6.9	2.6	62.3	45.0	1.38
	OBC HS2	23	6.9	3.2	53.6	45.0	1.19
	JHF HS1	27	6.5	2.5	61.5	45.0	1.37
10/25/2018	OBC HS1	26	7.1	2.2	69.0	45.0	1.53
	OBC HS2	26	7.1	2.2	69.0	45.0	1.53
	JHF HS1	28	5.8	2.4	58.6	45.0	1.30
RUNNING ANNUAL AVERAGE	OBC HS1						1.35
	OBC HS2						1.33
	JHF HS1						1.24
TOTAL COMBINED RUNNING ANNUAL AVERAGE							1.32

CITY OF JACKSON
TOC REMOVAL SUMMARY

2018

TOC Table- Required % Removal of TOC			
Source Water TOC (ppm)	Source Water Alkalinity, ppm as CaCO ₃		
	0-60	>60-120	>120
>2.0 to 4.0	35.0%	25.0%	15.0%
>4.0 to 8.0	45.0%	35.0%	25.0%
>8.0	50.0%	40.0%	30.0%

$$\% \text{ ACTUAL TOC REMOVED} = \frac{\text{RAW TOC} - \text{FINISHED TOC}}{\text{RAW TOC}} \times 100\%$$

$$\text{TOC REMOVAL RATIO} = \frac{\% \text{ ACTUAL TOC REMOVED}}{\text{REQUIRED TOC REMOVAL}}$$

Date	Water Treatment Plant	TOC Summary			TOC % Removal Summary		
		Source Water Alkalinity (ppm)	Source Water TOC (ppm)	Treated Water TOC (ppm)	Actual TOC Removed (%)	Required TOC Removal (%)	TOC Removal Ratio
11/2/2018	OBC HS1	19	8.3	3.0	63.9	50.0	1.28
	OBC HS2	19	8.3	3.2	61.4	50.0	1.23
	JHF HS1	26	6.2	3.5	43.5	45.0	0.97
11/15/2018	OBC HS1	23	9.6	2.3	76.0	50.0	1.52
	OBC HS2	23	9.6	2.5	74.0	50.0	1.48
	JHF HS1	21	10.1	2.8	72.3	50.0	1.45
12/10/2018	OBC HS1	13	8.9	3.3	62.7	50.0	1.25
	OBC HS2	13	8.9	2.0	77.5	50.0	1.55
	JHF HS1	14	8.9	2.7	69.7	50.0	1.39
12/17/2018	OBC HS1	16	9.7	1.3	86.6	50.0	1.73
	OBC HS2	16	9.7	2.0	79.4	50.0	1.59
	JHF HS1	21	10.9	4.2	61.5	50.0	1.23
12/26/2018	OBC HS1	10	9.2	2.9	68.5	50.0	1.37
	OBC HS2	10	9.2	3.5	62.0	50.0	1.24
	JHF HS1	14	9.9	3.6	63.6	50.0	1.27
	OBC HS1						
	OBC HS2						
	JHF HS1						
	OBC HS1						
	OBC HS2						
	JHF HS1						
	OBC HS1						
	OBC HS2						
	JHF HS1						
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	OBC HS2						
	JHF HS1						
	OBC HS1						
	OBC HS2						
	JHF HS1						
	OBC HS1						
	OBC HS2						
	JHF HS1						
RUNNING ANNUAL AVERAGE	OBC HS1					1.36	
	OBC HS2		1.34				
	JHF HS1		1.27				
	TOTAL COMBINED RUNNING ANNUAL AVERAGE					1.32	

CITY OF JACKSON
CORROSION CONTROL DATA

December 2018		SYSTEM ID: 250008-02			SYSTEM ID: 250008-01		
		OBC COMBINED HIGH SERVICE			JHF		
		DATE / SHIFT	pH	Hardness	Alkalinity	pH	Hardness
1	0700 - 1500	9.4	30	30	9.6	66	30
	1500 - 2300	9.5	27	28	9.6	77	35
	2300 - 0700	9.4	26	34	9.5	68	34
2	0700 - 1500	9.7	31	32	9.5	64	46
	1500 - 2300	9.7	30	34	9.7	67	54
	2300 - 0700	9.7	30	32	9.4	67	58
3	0700 - 1500	9.5	31	31	9.4	75	44
	1500 - 2300	9.4	28	32	9.1	62	55
	2300 - 0700	9.5	33	30	9.2	62	28
4	0700 - 1500	9.7	30	33	9.4	70	52
	1500 - 2300	9.2	20	20	9.4	67	32
	2300 - 0700	9.4	26	27	9.6	68	29
5	0700 - 1500	9.4	29	31	9.4	66	33
	1500 - 2300	9.2	27	20	9.7	70	28
	2300 - 0700	9.4	26	27	9.7	70	27
6	0700 - 1500	9.4	30	32	9.5	70	47
	1500 - 2300	9.4	29	27	9.8	84	33
	2300 - 0700	9.4	28	26	9.7	69	30
7	0700 - 1500	9.0	28	26	9.8	70	30
	1500 - 2300	9.5	19	19	9.7	69	30
	2300 - 0700	9.4	19	20	9.5	67	26
8	0700 - 1500	9.3	19	20	9.3	88	24
	1500 - 2300	9.2	17	16	9.4	62	25
	2300 - 0700	9.2	15	18	9.5	67	28
9	0700 - 1500	9.5	22	21	9.4	75	30
	1500 - 2300	9.6	24	28	9.3	61	28
	2300 - 0700	9.4	26	28	9.5	69	30
10	0700 - 1500	9.5	29	31	9.4	54	51
	1500 - 2300	9.5	32	33	9.6	67	35
	2300 - 0700	9.4	30	31	9.6	72	32
11	0700 - 1500	9.2	31	33	9.5	70	47
	1500 - 2300	9.5	16	23	9.3	75	21
	2300 - 0700	9.2	19	27	9.7	71	26

CITY OF JACKSON
CORROSION CONTROL DATA

December 2018		SYSTEM ID: 250008-02			SYSTEM ID: 250008-01		
		OBC COMBINED HIGH SERVICE			JHF		
		DATE / SHIFT	pH	Hardness	Alkalinity	pH	Hardness
12	0700 - 1500	9.7	32	20	9.4	81	49
	1500 - 2300	9.0	20	20	9.6	70	27
	2300 - 0700	9.0	22	20	9.8	61	27
13	0700 - 1500	9.0	28	24	9.9	67	44
	1500 - 2300	9.2	27	25	9.5	80	17
	2300 - 0700	9.2	28	26	9.4	61	17
14	0700 - 1500	9.5	29	28	9.3	64	18
	1500 - 2300	9.1	24	16	9.3	51	16
	2300 - 0700	9.2	25	18	9.8	61	19
15	0700 - 1500	9.2	26	20	9.5	68	22
	1500 - 2300	9.4	24	17	9.4	73	22
	2300 - 0700	9.4	25	19	9.8	64	17
16	0700 - 1500	9.3	29	24	9.3	59	21
	1500 - 2300	9.5	35	31	9.5	54	18
	2300 - 0700	9.2	32	31	9.3	68	19
17	0700 - 1500	9.2	33	32	9.6	60	22
	1500 - 2300	9.3	32	30	9.2	59	20
	2300 - 0700	9.2	30	31	9.2	64	18
18	0700 - 1500	9.2	22	17	9.0	58	19
	1500 - 2300	9.0	20	20	9.2	82	21
	2300 - 0700	9.2	24	22	9.2	56	16
19	0700 - 1500	9.3	23	21	9.2	66	21
	1500 - 2300	9.3	31	27	9.4	66	22
	2300 - 0700	9.2	29	25	9.3	65	16
20	0700 - 1500	9.5	35	31	9.0	66	19
	1500 - 2300	9.3	28	18	9.4	73	28
	2300 - 0700	9.3	26	20	9.5	64	18
21	0700 - 1500	9.5	29	27	9.5	69	20
	1500 - 2300	9.4	28	26	9.5	54	18
	2300 - 0700	9.3	29	28	9.6	64	24
22	0700 - 1500	9.8	28	26	9.7	65	21
	1500 - 2300	9.0	29	24	9.7	72	23
	2300 - 0700	9.6	28	27	9.6	65	17

CITY OF JACKSON
CORROSION CONTROL DATA

December 2018		SYSTEM ID: 250008-02			SYSTEM ID: 250008-01		
		OBC COMBINED HIGH SERVICE			JHF		
		DATE / SHIFT	pH	Hardness	Alkalinity	pH	Hardness
23	0700 - 1500	9.7	31	29	9.3	63	22
	1500 - 2300	9.7	34	32	9.5	56	18
	2300 - 0700	9.4	35	33	9.5	72	21
24	0700 - 1500	9.5	32	31	9.1	70	16
	1500 - 2300	9.5	34	32	9.2	60	16
	2300 - 0700	9.4	34	30	9.3	64	17
25	0700 - 1500	9.5	33	31	9.3	59	17
	1500 - 2300	9.6	36	32	9.3	68	21
	2300 - 0700	9.3	34	32	9.3	62	17
26	0700 - 1500	9.3	34	29	9.2	57	19
	1500 - 2300	9.2	32	29	9.1	70	18
	2300 - 0700	9.3	31	30	9.0	63	15
27	0700 - 1500	9.3	34	32	9.4	60	15
	1500 - 2300	9.3	32	30	9.2	67	25
	2300 - 0700	9.5	26	23	9.5	74	21
28	0700 - 1500	9.4	18	16	9.2	68	19
	1500 - 2300	9.2	20	19	9.0	63	19
	2300 - 0700	9.0	29	27	9.7	72	24
29	0700 - 1500	9.6	26	22	9.3	72	16
	1500 - 2300	9.6	27	18	9.9	73	24
	2300 - 0700	9.6	25	23	9.6	67	19
30	0700 - 1500	9.2	28	24	9.0	59	15
	1500 - 2300	9.2	31	30	9.3	61	23
	2300 - 0700	9.3	31	30	9.5	69	22
31	0700 - 1500	9.0	32	30	9.3	65	16
	1500 - 2300	9.1	34	31	9.8	77	17
	2300 - 0700	9.2	32	30	9.8	74	20
MONTHLY MIN		9.0	15	16	9.0	51	15
MONTHLY MAX		9.8	36	34	9.9	88	58
MONTHLY AVG		9.4	28	26	9.4	67	26

**CITY OF JACKSON
UV COMPLIANCE**

System ID	250008-02	Month of	December 2018											Total Off-Specification Volume (MG) = 0	
Date	Run Time (Hrs)	Total Production (Gals)	Calculated Min Dose (mJ/cm2)	Min Flow Rate (MGD)	Min UVT (%)	Run Time (Hrs)	Total Production (Gals)	Calculated Min Dose (mJ/cm2)	Min Flow Rate (MGD)	Min UVT (%)	Run Time (Hrs)	Total Production (Gals)	Calculated Min Dose (mJ/cm2)	Min Flow Rate (MGD)	Min UVT (%)
12/1/2018	24.0	2945139	35	2.9	95	23.3	3005208	35	3.0	91	24.0	2965625	41	3.0	85
12/2/2018	23.5	3167014	32	3.2	95	23.2	3222917	33	3.2	90	23.5	3164931	38	3.2	85
12/3/2018	24.0	3131597	34	3.1	95	20.2	3804514	43	3.8	92	23.2	3064931	39	3.1	85
12/4/2018	23.0	3104514	45	3.1	95	15.3	4286458	36	4.3	89	23.0	3063889	41	3.1	85
12/5/2018	24.0	2962500	36	3.0	95	24.0	2167361	54	2.2	93	24.0	2996875	43	3.0	85
12/6/2018	24.2	2987285	36	3.0	95	24.2	2105842	56	2.1	93	24.2	3024742	43	3.0	85
12/7/2018	23.7	3027431	35	3.0	95	23.7	2064236	92	2.1	92	23.5	3015278	42	3.0	85
12/8/2018	23.2	2979167	58	3.0	95	24.0	2092708	58	2.1	93	23.8	3030903	43	3.0	85
12/9/2018	24.0	3039931	36	3.0	95	23.6	2117014	70	2.1	92	23.6	3022569	43	3.0	85
12/10/2018	24.0	2854861	37	2.9	95	24.0	2035764	59	2.0	93	24.0	2894097	44	2.9	85
12/11/2018	24.0	2920139	36	2.9	95	21.2	2461458	65	2.5	91	24.0	2967708	41	3.0	85
12/12/2018	23.6	2602431	39	2.6	95	24.0	1844444	64	1.8	93	23.6	2560417	50	2.6	85
12/13/2018	24.0	2389583	42	2.4	95	24.0	1794792	64	1.8	93	22.2	2401736	47	2.4	85
12/14/2018	22.6	2279861	52	2.3	95	23.7	2100347	89	2.1	91	24.0	2339931	51	2.3	85
12/15/2018	16.2	2399653	40	2.4	95	23.0	2314583	62	2.3	92	23.0	2323264	49	2.3	85
12/16/2018	24.0	1990972	45	2.0	95	24.0	1987847	55	2.0	92	24.0	2255208	51	2.3	85
12/17/2018	11.2	1167014	158	1.2	95	22.5	2234375	115	2.2	91	23.7	2288542	51	2.3	85
12/18/2018	0.0	0	0	0.0	0	24.0	2114236	55	2.1	93	23.7	2573264	46	2.6	85
12/19/2018	0.0	0	0	0.0	0	23.5	2077430	77	2.1	91	23.7	2643750	45	2.6	85
12/20/2018	0.0	0	0	0.0	0	24.0	2078472	53	2.1	93	24.0	2641319	45	2.6	85
12/21/2018	0.0	0	0	0.0	0	17.5	2186458	85	2.2	90	23.6	2668403	44	2.7	85
12/22/2018	0.0	0	0	0.0	0	24.0	2195833	52	2.2	93	23.7	2596875	44	2.6	85
12/23/2018	0.0	0	0	0.0	0	24.0	2137153	53	2.1	93	24.0	2704861	44	2.7	85
12/24/2018	0.0	0	0	0.0	0	24.0	2085069	56	2.1	93	24.0	2660069	45	2.7	85
12/25/2018	0.0	0	0	0.0	0	24.0	2070486	55	2.1	93	24.0	2670139	44	2.7	85
12/26/2018	0.0	0	0	0.0	0	23.4	2148611	77	2.1	90	23.6	2557986	45	2.6	85
12/27/2018	0.0	0	0	0.0	0	24.0	2079167	57	2.1	94	24.0	2530556	46	2.5	85
12/28/2018	0.0	0	0	0.0	0	24.0	2079167	58	2.1	94	24.0	2611458	45	2.6	85
12/29/2018	0.0	0	0	0.0	0	23.6	2121181	91	2.1	91	24.0	2788889	43	2.8	85
12/30/2018	0.0	0	0	0.0	0	24.0	2155556	64	2.2	95	23.5	2820833	43	2.8	85
12/31/2018	0.0	0	0	0.0	0	24.0	2103472	62	2.1	95	24.0	2837500	43	2.8	85

**CITY OF JACKSON
UV COMPLIANCE**

System ID 250008-01 Month of December 2018 Total Off-Specification Volume (MG) = 0

Date	Min Flow Rate (MGD)	Total Production (Gals)	UV Reactor #1			UV Reactor #2			UV Reactor #3			UV Reactor #4		
			Run Time (Hrs)	Calc Min Dose (mJ/cm ²)	Min UVT (%)	Run Time (Hrs)	Calc Min Dose (mJ/cm ²)	Min UVT (%)	Run Time (Hrs)	Calc Min Dose (mJ/cm ²)	Min UVT (%)	Run Time (Hrs)	Calc Min Dose (mJ/cm ²)	Min UVT (%)
12/1/2018	9.9	9850729	5.9	27	85	0.0	0	0	0.0	0	0	13.2	24	87
12/2/2018	10.2	10233385	24.0	27	85	0.0	0	0	0.0	0	0	0.0	0	0
12/3/2018	10.0	9960330	24.0	27	85	0.0	0	0	0.0	0	0	0.0	0	0
12/4/2018	9.9	9855781	24.0	28	85	0.0	0	0	0.0	0	0	0.0	0	0
12/5/2018	9.5	9545764	10.1	22	85	12.2	23	85	0.0	0	0	0.0	0	0
12/6/2018	9.7	9746007	0.0	0	0	9.5	20	85	14.4	25	75	0.0	0	0
12/7/2018	10.0	10001736	0.0	0	0	0.0	0	0	24.0	24	75	0.0	0	0
12/8/2018	10.0	9997066	0.0	0	0	0.0	0	0	24.0	25	75	0.0	0	0
12/9/2018	9.6	9599026	0.0	0	0	0.0	0	0	8.9	21	75	14.6	17	87
12/10/2018	9.2	9199115	0.0	0	0	0.0	0	0	0.0	0	0	24.0	28	87
12/11/2018	9.3	9330538	0.0	0	0	0.0	0	0	0.0	0	0	24.0	28	87
12/12/2018	8.9	8879149	4.6	15	85	0.0	0	0	16.6	19	75	24.0	29	87
12/13/2018	8.7	8724497	0.0	0	0	0.0	0	0	24.0	25	75	24.0	27	87
12/14/2018	8.8	8790833	0.0	0	0	0.0	0	0	20.6	22	75	24.0	27	87
12/15/2018	8.7	8711858	0.0	0	0	0.0	0	0	24.0	25	75	24.0	26	87
12/16/2018	8.7	8733785	0.0	0	0	0.0	0	0	24.0	25	75	24.0	25	87
12/17/2018	10.8	10845347	0.0	0	0	0.0	0	0	24.0	23	75	24.0	25	87
12/18/2018	13.1	13144236	14.2	15	85	5.3	17	85	2.7	22	75	24.0	23	87
12/19/2018	10.7	10656233	24.0	29	85	11.5	20	85	0.0	0	0	12.5	22	87
12/20/2018	10.6	10648542	24.0	28	85	24.0	26	85	0.0	0	0	0.0	0	0
12/21/2018	10.7	10735399	24.0	25	85	24.0	26	85	0.0	0	0	0.0	0	0
12/22/2018	10.8	10751059	24.0	25	85	24.0	26	85	0.0	0	0	0.0	0	0
12/23/2018	10.7	10745399	24.0	25	85	24.0	24	85	0.0	0	0	0.0	0	0
12/24/2018	10.8	10757639	24.0	25	85	24.0	24	85	0.0	0	0	0.0	0	0
12/25/2018	10.7	10697847	24.0	25	85	24.0	24	85	0.0	0	0	0.0	0	0
12/26/2018	10.8	10756996	24.0	23	85	24.0	25	85	0.0	0	0	0.0	0	0
12/27/2018	10.7	10663802	24.0	21	85	24.0	23	85	0.0	0	0	0.0	0	0
12/28/2018	11.4	11436389	0.0	0	0	24.0	19	85	3.0	29	75	1.4	27	87
12/29/2018	10.5	10452135	0.0	0	0	24.0	18	85	0.0	0	0	19.8	21	87
12/30/2018	10.3	10318368	0.0	0	0	24.0	17	85	0.0	0	0	24.0	25	87
12/31/2018	10.3	10335244	0.0	0	0	24.0	14	85	0.0	0	0	24.0	24	87